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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/735,249	12/11/2000	Charles R. Cahn	SIRF-56139(22-US-C1)	6416

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EXAMINER

HA, DAC V

ART UNIT	PAPER NUMBER
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2634

DATE MAILED: 01/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/735,249

Applicant(s)

CAHN ET AL.

Examiner

Dac V. Ha

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 20-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 20-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. **Claims 1-10** are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 1 recites "means for correlating a received, code modulated spread spectrum signal with a code modulated signal replica". The only place in the specification that mentions about such correlation between those two signals is in the summary of the invention (page 5, paragraph 3) as "another aspect" of the invention. The specification, however, fails to specifically point out as how such step is accomplished.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 20-23** are rejected under 35 U.S.C. 102(b) as being anticipated by Meehan (US 5,347,536).

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Regarding claim 20, Meehan discloses a Multithread Noise Reduction For Spread Spectrum Signals, which teaches the claimed subject matter in claim 20 as follows.

“generating a local replica of the code” (Figures 13, 14; element 105; Col. 8, lines 43-44)

“correlating the local replica with coded, ... phase delays” (Figures 13, 14; elements 125, 130, 190, 110, 115)

“determining prompt code phase ... two of said correlations” (Figures 13, 14; elements 150 105; Col. 8, line 57 to Col. 9, line 41)

Regarding claim 21, Meehan further teaches the claimed subject matter “correlating ... delay differences” in Figures 13, 14; elements 110, 115; Col. 8, lines 44-46.

Regarding claim 22, Meehan further teaches the claimed subject matter “determining ... relationship” as follows. In Meehan's reference, the outputs from elements 105 and 115 (late and early) teaches the claimed subject matter “determining a second pair of code delays, separated by a predetermined phase delay difference”. Further, Meehan also teaches the claimed subject matter “the magnitude of the correlations at said second pair of code delays having a predetermined relationship” in Col. 7, lines 20-25; Figure 6.

Regarding claim 23, Meehan further teaches the claimed subject matter “wherein ... common code delay” in Figure 14, element 115; wherein, as indicated previously, the first pair comprising output from element 110 and 115 and the second pair comprising output from element 105 and 115.

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Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hulbert et al. (US 6,330,273) disclose an Apparatus For Code Tracking In A Direct Sequence Spread Spectrum Receiver.

Meehan et al. (US 6,061,390) disclose a P-Code Enhanced Method For Processing Encrypted GPS Signals Without Knowledge Of The Encryption Code.


Stansell, Jr. (US 5,963,582) discloses a Mitigation Of Multipath Effects In Global Positioning System Receivers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 703-306-5536. The examiner can normally be reached on 5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-746-5813 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-5500.

Dac V. Ha
Examiner
Art Unit 2634


STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

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January 16, 2003